

REMARKS

This Amendment is responsive to the Office Action mailed October 2, 2006.

Applicants affirm the election of Group I, claims 19-30, without traverse.

Claims 19-20, 22-23, and 28-30 were rejected under 35 U.S.C. §102(b) as being anticipated by Nakamura. Reconsideration and withdrawal of these rejections are respectfully requested.

In Nakamura, a servo valve 23 vibrates the needle 31. See Fig. 1 and Col. 5, lines 50-55. The needle 31 is disposed at a non-zero angle relative to the heating cylinder 11 through which the screw 12 travels. Specifically, the needle 31 enters the flow path at a kink or bend formed within the internal chamber of the heating cylinder 11 and vibrates the material in the flow path when in the half open position (see Fig. 2 and Col. 6, lines 21-28).

In contrast, claimed injection moulding tool calls for, as amended,

**a fixed portion defining an elongate chamber;
a flow path through which a material to be injection moulded passes in use, the flow path passing through a portion of the elongate chamber;
an ultrasonically vibrating probe disposed coaxially within the elongate chamber and at least partially into the flow path so as to directly contact and vibrate the material passing through the flow path as the material is being injected**

Indeed, the claim requires an elongate chamber through which the flow path passes and an ultrasonically vibrating probe disposed coaxially within the elongate chamber. Nakamura does not teach any such ultrasonically vibrating probe that is coaxial with any elongate chamber. In Nakamura, the needle 31 is disposed at a non-zero angle relative to the only elongate chamber shown, namely the chamber of the heating cylinder 11 through which the screw 12 travels. The needle 31 of Nakamura cannot be said to be disposed coaxially relative to any elongate chamber,

as required by amended claim 19. Therefore, Nakamura cannot anticipate amended claim 1 or any of its dependent claims.

For the sake of accuracy, it is respectfully submitted that Nakamura teaches to vibrate the needle 31 at 5 to 40 Hz (col. 6, line 47) and not 10 kHz to 50 kHz as advanced on page 4 of the outstanding Office Action.

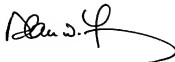
Claims 19-21, 23 and 30 were rejected as being anticipated by Eicher et al. Reconsideration and withdrawal of these rejections are respectfully requested.

Eicher teaches the use of an ultrasonic horn 16 that surrounds a channel 22 through which the material travels toward the exit 22 to the mold 24. There is no teaching in Eicher et al. of any “ultrasonically vibrating probe disposed coaxially within the elongate chamber and at least partially into the flow path so as to directly contact and vibrate the material passing through the flow path as the material is being injected”, as required by amended independent claim 19. Eicher et al. simply do not teach any probe within an elongate chamber. Instead, Eicher et al. rely upon an ultrasonic horn 16 that surrounds the channel 22. See Eicher et al., col. 2 lines 16-32. Reconsideration and withdrawal of these rejections are, therefore, respectfully requested.

As the sole remaining independent claim has been amended so as to unambiguously distinguish it from the references applied thereto, it is not believed necessary, at this time, to discuss the rejection of claims 24-27 under 35 U.S.C. §103(a) over the Nakamura-Grunitz combination.

Applicants believe that this application is now in condition for allowance. If any unresolved issues remain, please contact the undersigned attorney of record at the telephone number indicated below and whatever is necessary to resolve such issues will be done at once.

Respectfully submitted,



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